

Texas Specification No. 180-94-01B

(Supersedes Specification No. 180-94-01A)

Effective Date: February 26, 1996

Revised: September 22, 2003

Specification

for

TITANIUM DIOXIDE: ANATASE

1. SCOPE: This specification establishes the minimum requirements for a commercial grade of anatase (TiO₂) suitable for use in the manufacture of bar soap and floor care products.

2. APPLICABLE SPECIFICATIONS AND STANDARDS: References to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the Invitation for Bids. Copies of the referenced documents may be obtained from the issuing organizations at the addresses shown. The following publications form a part of this specification to the extent specified herein:

2.1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959: www.astm.org.

2.1.1. ASTM D 185 - Standard Test Methods for Coarse Particles in Pigments, Pastes, and Paints.

2.1.2. ASTM D 1394 - Standard Test Methods for Chemical Analysis of White Titanium Pigments.

2.2. GLOBAL ENGINEERING DOCUMENTS, Customer Support A105, 15 Inverness Way, Englewood, CO 80112, (800) 624-3974, Fax: (303) 792-2192, www.global.ihs.com.

2.2.1. Global Engineering Documents is an information specialist company that maintains and provides standards information for numerous organizations. Copies of standards may also be ordered from Global Engineering Documents.

3. DEFINITIONS: Terminology used in this specification is intended to be generic in nature and consistent with meanings that have been defined through general use and/or

accepted trade practices. Where variant meanings may exist, the applicable interpretation shall be determined by the Texas Building and Procurement Commission (TBPC).

3.1. COMMISSION: Texas Building and Procurement Commission (TBPC).

4. REQUIREMENTS: Products furnished under this specification shall meet or exceed the following requirements:

4.1. GENERAL REQUIREMENTS: The product shall be a pure white, finely divided solid, free from admixture with extender pigments.

4.2. Titanium Dioxide Contents: The purity of TiO_2 shall be not less than 97.0% when tested in accordance with Paragraph 6.1.

4.3. Particle Size by Sieve Analysis: The percent by weight retained on a NO. 325 (45 mm) standard sieve shall not exceed 0.2%, when tested in accordance with Paragraph 6.2.

5. SAMPLES: Unless otherwise specified in the Invitation for Bids, no prepurchase samples shall be required. Samples tested shall be taken from regular orders.

6. TESTING: Testing shall be done by or at the direction of, the Commission and/or the receiving State agency. Tests shall be performed on products from shipments to ordering agencies. In the event products tested fail to meet or exceed all conditions and requirements of this specification, the cost of the samples used and the cost of testing shall be borne by the supplier.

6.1. TESTS: The product furnished under this specification shall be tested by the following methods or approved equally applicable procedures:

6.1.1. Titanium Dioxide: Determine purity by ASTM D 1394.

6.1.2. Particle Size: Determine size by ASTM D 185.

6.1.3. Certification: When so specified in the Invitation for Bids, the vendor shall provide technical data sheets from the manufacturer and material safety data.

7. INSPECTION: Products furnished under this specification shall be inspected by, or at the direction of the Commission and/or the ordering State agency either at the destination or place of manufacture.

8. PACKING / PACKAGING: Packing for shipment shall be in accordance with the manufacturer's standard practice and in a manner readily accepted by common carriers engaged in interstate commerce. Within the shipping carton, units shall be packed in a manner designed to minimize damage during the shipment because of rough or improper handling.

8.1. Container Size: The product shall be furnished in 50 pounds net (22.7 kg) moisture-proof, multi-wall paper bags.

8.2. Storage: Safe and proper handling and disposal shall be indicated.

9. MARKING / LABELING:

9.1. MARKING: Each shipping container shall be clearly marked with the following:

9.1.1. Name of contents, including brand name, if any.

9.1.2. Quantity contained in pounds and/or kilograms.

9.1.3. Name and address of the manufacturer.

9.1.4. Warning statements as required by governmental regulations. A label on a container of a hazardous chemical must meet the requirements of the most current OSHA standards.

The following information shall either be marked on the container or appear on the shipping documents:

9.1.5. Order number or contract number.

9.1.6. Name and address of ordering agency.

9.1.7. Agency requisition number.

9.2. LABELING: Each container shall bear a durable label containing the name of the product and instructions for use, including required precautionary statements.

9.2.1. Name and address of the manufacturer.

9.2.2. Quantity contained in pounds and/or kilograms.

10. COMPLIANCE: In order for consideration to be given to the bid on an item under this specification, the bidder must comply with the following:

10.1. PRODUCT IDENTIFICATION: The make, model number, name of the manufacturer, brand or trade name, etc., as applicable, of the item which the vendor proposes to furnish must be stated as part of the bid.

10.2. EXCEPTIONS: Notwithstanding the above, any exception taken by the bidder to the requirements and conditions of this specification must be stated and described in detail as a part of the bid. If no exceptions or deviations are identified in this manner, the items must be furnished exactly as described herein.

10.3. PROOF: The bidder shall bear the burden of proof of compliance with this specification.

10.4. C of A (Certificate of Analysis): A certificate of analysis shall accompany each batch shipped.

10.5. Material Safety Data Sheets (MSDS): All Items must conform to the Texas Hazard Communications Act by being certified as nontoxic or providing an official MSDS sheet conforming to the requirements of the most current OSHA standards. A copy of the official MSDS sheet for each applicable chemical product must be submitted to each location with each sample, with each initial shipment, and with the first shipment after an MSDS is updated.

11. ORDERING DATA: When ordering products conforming to this specification the requisitioning agency shall specify the following:

11.1. The number of this specification (180-94-01B).

11.2. The total quantity required, in pounds (kilograms).

12. APPROVED PRODUCTS LIST (APL): The Commission will maintain an APL of products that meet or exceed the requirements of this specification. Listing as an approved product shall be required. Additional products meeting the specifications may be submitted and may be considered. Products not on the APL prior to bid advertisement must be evaluated and approved prior to award. The state reserves the option of not considering any product that is not on the APL prior to bid advertisement.

Samples for evaluation must be submitted within 7 working days of request at no cost to the Commission. Location to submit samples will be given at time of request.

12.1. LISTING: To have a product listed on the APL:

12.1.1. First, verify that the product meets or exceeds every requirement of this specification.

12.1.2. Second, submit a written request to the Specifications and Standards Program, Central Procurement Services, that the product be added to the Class 180 APL. Include with your request detailed technical specifications, product literature, and Material Safety Data Sheets (MSDS), addressing all of the requirements.

12.1.3. Last, submit a free sample of the product (usually a pint or a pound) for evaluation. The sample must be labeled with the Manufacturer's Trade Name or Trademark, exactly as the product is marketed.

12.2. EVALUATION: The technical specifications will be evaluated and if found to meet or exceed the requirements, the sample will be tested. If found to be suitable for the intended use, the product will be added to the APL.

12.3. CONTINUED COMPLIANCE: Listing shall not relieve the manufacturer/vendor of providing products meeting each requirement of this specification.

The manufacturer/vendor shall notify the Commission, in writing, of any changes in the product, address, brand name, etc. Failure to do so may result in the removal from the APL.

12.4. REMOVAL/RELISTING: Approved products may be removed for noncompliance, as determined by the Commission, or for failure to provide notification of change. Products may be relisted in accordance with Paragraph 12.1.

13. PRODUCT INFORMATION: Titanium dioxide is a white pigment commonly used as an opacifying agency in bar soap and in certain floor care products. It is chemically inert, and requires no unusual precautions in handling, other than avoidance of dust inhalation.

14. AVAILABILITY OF SPECIFICATIONS: Copies of this specification are available [online](#) at or may be obtained by calling or writing:

Specifications
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